

Applicants: Satyanarayan R. Panpaliya et al.
Appln No.: 10/657,985
Filed: 09/09/2003
Atty. Docket: CM05324J
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Examiner: Burd, Kevin Michael
Group Art Unit: 2631

REMARKS

In the first Office Action, claims 4-10 and 13 were rejected under 35 U.S.C. § 102(b) as obvious over Uddenfeldt et al. U.S. Patent No. 5,327,576. Claims 1-3 were rejected under § 103(a) as obvious over Uddenfeldt et al. in view of Chin et al. Claim 11 was rejected under § 103(a) as obvious over Chin et al. and claim 12 was rejected under § 103(a) as obvious over Uddenfeldt et al. in view of Chung. In view of the amendments and remarks herein, Applicants respectfully request reconsideration of this application.

The present invention is directed to a two-way radio that includes a scalable speech coder and a scalable channel coder controlled by means of a supporting protocol that transmits predetermined digital audio quality and predetermined audio output bit rate information at regular intervals. In the Office Action, the Examiner relies primarily on the Uddenfeldt et al. reference that teaches a system for handing off a mobile station between half-rate and full-rate channels. In Uddenfeldt et al., the system is limited to only half-rate and full-rate systems while the present invention considers variable rate channel coders and voice coders. Moreover, the present invention defines a relationship of dynamically varying the rates of the channel and voice coders in both linear and discrete digital steps. The present invention sets forth a relationship between transmitting and receiving half-duplex voice communication devices to determine the best tradeoff between audio quality and range.

With regard to Chin et al., this patent teaches the use of an asymmetrical data rate in a wireless communications network. The Chin et al. invention works to transfer informational messages between two units while the present invention operates using informational messages to transmit current channel and voice coder rates to a receiver in a half duplex communication.

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The present invention does not require a separate frequency channel for informational messages but rather uses a reverse channel to convey predetermined digital audio quality and audio output bit rate information. The Chang patent teaches an asymmetric speech coding for a digital cellular communications system wherein power levels are changed for reducing interference and improving BER. In contrast, the present invention transmits channel quality information that is incorporated in the channel protocol using a reverse channel rather than a separate frequency channel.

In order to better define the invention over the prior art, claims 1, 4, 9, 10, 12 and 13 have been amended to now indicate that the predetermined digital audio quality and predetermined audio output bit rate information is transmitted by allocating extra bits in a reverse channel. Certainly this is neither taught nor suggested in Uddenfeldt et al., Chin et al, or Chang. Since the use of a reverse channel is both novel and non-obvious over the prior art, Applicants respectfully request that the rejections as applied to claims 1 to 13 be withdrawn. Further, claim 2 has been cancelled.

Accordingly, this application is now believed to be in proper form for allowance. An early notice thereof is respectfully requested. Should the Examiner have any comments or suggestions that would expedite the allowance of this application, he is respectfully requested to telephone the undersigned.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless Applicants have argued herein that such amendment was made to distinguish over a particular reference or combination of references.

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Please charge any additional fees associated with this amendment and credit any overpayments to Deposit Account No. 50-0223. A duplicate original of this sheet is enclosed.

Respectfully submitted,

Dated: 12/16/2004

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